

NEW MEXICO OIL CONSERVATION COMMISSION

WORDS OFFICE 000

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalisco Formation Yates & 7 Rivers County Lea 1959 MAY 21 AM 9 51
Initial _____ Annual _____ Special X Date of Test 4-15/19 - 57
Company Water Drilling Company Lease Woolworth Well No. 3
Unit M Sec. 26 Twp. 34 Rge. 37 Purchaser E.P.N.C.
Casing 7" Wt. 24.04 I.D. 6.336 Set at 3270 Perf. 3060 To 3130
Tubing None Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
Gas Pay: From 3060 To 3130 L 3060 xG 0.650 GL 1989 Bar. Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well Single
Single-Bradenhead G. or G.O. Dual
Date of Completion: 1949 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.								497		72
2.	4	1.000	4167.5	49.0	66			417		24
3.	4	1.000	4008.0	64.0	72			408		24
4.	4	1.000	3908.6	77.44	67			393		24
5.	4	1.000	3832.05	97.02	72			387		24

FLOW CALCULATIONS

No.	Coefficient (FLC ₂₄)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.							
2.	6.135	144.98		.9943	.9608	1.041	894
3.	6.135	162.58		.9987	.9608	1.039	984
4.	6.135	176.66		.9933	.9608	1.039	1.075
5.	6.135	196.02		.9987	.9608	1.037	1.184

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 0.4915 (1-e^{-s}) 0.128

Specific Gravity Separator Gas 0.650
Specific Gravity Flowing Fluid _____
P_c 510.2 P_c² 260.3

No.	$\frac{P_y}{P_t}$ (psia)	P _t ²	F _c Q	(F _c Q) ²	$\frac{(F_c Q)^2}{(1-e^{-s})}$	P _w ²	P _c ² -P _w ²	Cal. P _w	$\frac{P_w}{P_c}$
1.									
2.	430.2	185.1	0.43	0.18	0.023	185.1	75.2		
3.	415.2	172.4	0.48	0.23	0.029	172.4	87.9		
4.	406.2	165.0	0.53	0.28	0.036	165.0	95.3		
5.	400.2	160.2	0.58	0.34	0.044	160.2	100.1		

Absolute Potential: 3,075 MCFPD; n 1,000COMPANY E.P.N.C.ADDRESS Jalisco, N.M.AGENT and TITLE E. C. Smith

WITNESSED _____

COMPANY Water Drilling Co. By A. D. Weier Jr. Sec. Treas.

REMARKS

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .